TROPICAL RAINFALL MEASURING MISSION

November 20, 2000 – November 26, 2000
DOY 325 - 331
Day of Mission 1089 - 1095

TRMM MISSION OPERATIONS

- TRMM is flying in the -X Forward direction as of November 13th (00-318) at 19:17:00z.
- Yaw maneuver #50 is scheduled for December 16th (00-351).
- Delta-V #253 is scheduled for November 28th (00-333), using the ISP thrusters.
- The Beta angle range for 00-332 to 00-338 is -51.4° to -46.3°.
- The next Monthly Status Review (MSR) is scheduled for December 6th (00-341).
- The next End of Life Planning meeting is scheduled for November 29th (00-334).
- The next Flight Software CCB meeting is scheduled for December 14th (00-349).
- 37 days remain until Extended Mission science operations begin on January 1st, 2001.

TRMM SUBSYSTEM OPERATIONS

Attitude Control System (ACS)

00-325 (Monday, November 20th)
Delta-V maneuver #250 was successfully conducted at 16:53:23z and 17:39:08z for durations of 38.375 and 28.000 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 40.1% and 39.3% (59.9% and 60.7% on time). The remaining fuel is 496.254 kg, and the final apogee and perigee height is 354.97 km x 347.54 km.

00-326 (Tuesday, November 21st)
The daily EPV failed the continuity check in the Y-axis (ER #221) on a day following a Delta-V. The standard procedure of temporarily widening the continuity limits was performed and the updated EPV began propagating at 23:00z.

00-328 (Thursday, November 23rd)
Delta-V maneuver #251 was successfully conducted at 16:31:00z and 17:16:50z for durations of 39.500 and 20.750 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 38.9% and 38.6% (61.1% and 61.4% on time). The remaining fuel is 494.857 kg, and the final apogee and perigee height is 354.74 km x 347.49 km.

00-331 (Sunday, November 26th)
Delta-V maneuver #252 was successfully conducted at 16:11:27z and 16:57:14z for durations of 50.000 and 33.625 seconds respectively, using the ISP thrusters. The off-modulation of the -Pitch thruster (#6) for burn 1 and 2 was 38.5% and 35.3% (61.5% and 64.7% on time). The remaining fuel is 492.912 kg, and the final apogee and perigee height is 355.07 km x 347.70 km.

Flight Data System (FDS)/Command & Data Handling (C&DH)

The UTCF remains at 31535996.835569 seconds. The current drift value is –854.0 µs. The FS offset is x'7ae' with a current drift rate of –1.561 µs/hr.

Reaction Control Subsystem (RCS)

The RCS subsystem performed nominally during this period. See the ACS section for specific Delta-V information.

Power Subsystem

The Power subsystem performed nominally during this period.

Electrical Subsystem

The Electrical subsystem performed nominally during this period.

Thermal Subsystem

The Thermal subsystem performed nominally during this period.

Deployables Subsystem

The Deployables subsystem performed nominally during this period.

RF/Communications Subsystem

The RF/Communications subsystem performed nominally during this period.

SPACECRAFT INSTRUMENTS

CERES

CERES remains powered OFF, following the original PSIB anomaly on September 16th (00-261).

LIS

The LIS instrument performed nominally during this period.

PR

The PR instrument performed nominally during this period. A Logampcheck Command Request was performed on November 20th (00-325) which cycles through the PR attenuation levels.

The list of Internal Calibration times over Australia in which PR was not radiating is shown below:

2000-325/22:43:10z - 22:45:23z
2000-326/15:03:12z - 15:05:40z
2000-326/23:05:55z - 23:08:01z
2000-327/21:54:23z - 21:56:34z
2000-328/14:12:31z - 14:17:17z
2000-328/22:17:23z - 22:19:22z

2000-329/21:05:56z - 21:08:07z
2000-330/19:54:27z - 19:56:41z
2000-331/20:16:57z - 20:19:05z

TMI

The TMI instrument performed nominally during this period.

VIRS

The VIRS instrument performed nominally during this period.

GROUND SYSTEM

No new ground system issues occurred during this period.

Event Reports

00-326 (Tuesday, November 21st)
ER #221: TRMM Daily EPV failed the 50 km continuity in the Y-axis on a day following a Delta-V maneuver. With increased solar activity and more frequent maneuvers, the post-burn EPVs which have no continuity checking, are apparently not as accurate as the normal daily EPVs.

Generic Late Acquisition Reports (for TTRs 19639)

#73 00-326/08:33:51z; TDW/SSA-1; 1 minute 21 second late AOS.

New Anomalies

No new anomalies occurred during this time period.

Recurring/Open Anomalies

No open anomalies recurred during this period.

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